

Accessing health related information through electronic channels

Emerging technologies and digitization
in the life sciences industry



Building a better
working world

The life sciences industry is changing at a rapid rate, transforming to meet new opportunities presented by digital platforms. But where there is opportunity, there is also risk and this traditionally highly regulated industry is faced with managing more risks than most. Companies must take inventory of their digital space if they are to manage these channels effectively and make the most of the opportunities they bring.

Life sciences

Self-assessment questions

1. What is your current internet, social media and digital footprint?
2. Who, within your company, owns your online presence and strategy?
3. How do you oversee your digital content presence?
4. What is your risk assessment of your company's online presence?
5. How do you plan or mitigate risks that appear against that assessment?
6. How would you rate your organizational maturity of managing online digital content?

A new digital era

"The world has hit a tipping point," Adlai Goldberg, EY Partner – Advisory says, "where, for the first time, people are looking to digital content as the first point of enquiry for medical information or health question." This change, where people are bypassing traditional health specialists, nurses and pharmacists in favor of the world wide web, is a startling wake-up call to life sciences companies, who have limited (or no) risk management processes in place for curating this content.

Emerging technologies were identified among the top 10 risks in EY's global study *Business Pulse: dual perspectives on global top 10 risks and opportunities 2013 and beyond*, but Goldberg says the key is finding a balance between the risks and opportunities that these technologies offer. Emerging technologies and new digital channels provide opportunity for life sciences companies to provide helpful information directly to the public, across the world, and an opportunity to learn a lot more about patients. Goldberg highlights: "You're able to

lower costs and actually engage with patients a lot more effectively to better design and develop products and services for the future."

The challenge for companies, not only in life sciences but other sectors as well, is to put in place processes to govern and curate their digital content to mitigate risk and liability. For most life sciences companies, there has been no clearly defined ownership or responsibility over the creation or distribution of digital content. In company-generated content, many departments may be involved in one single piece of digital content, and so the ownership is muddled due to the number of people it goes through before becoming fit for purpose.

As digital barriers are low, and content can be created and dispersed with little issue, control over what information is circulating becomes much more difficult. Life sciences companies often have no idea how much digital content is publicly available in connection to their brands or products and have no processes of curation to monitor or update this information. "Benchmark numbers that we've seen in globalized life sciences companies show that the average number of active, unique domains that they own tends to be between 1,200 and 2,500. And within those domains, there tends to be between half a million and a million individual web pages."

If you look at a life sciences company's traditional risk frameworks, there won't be anything around digital, Goldberg says. "Because there are so many different perspectives required, we need to bring everybody together in a room to define what the risk matrix looks like."

No escaping the challenges

To manage the risks posed by digital content proliferation, companies must first identify the reach of digital content they already have, by carrying out an audit of their channels.

Goldberg outlines the five areas of content:

- ▶ Content produced by the life sciences company itself
- ▶ Content produced on behalf of the company, usually by an external agency
- ▶ Content produced on behalf of the company through employees to third-party channels
- ▶ Sponsored material or web locations linked to the company
- ▶ Content that is about the company, authored by a third party exclusive of the company



These five areas cover everything from content the company has control over to where it has no control. They run from one end of the spectrum to the other in terms of risk; with content that the company produces itself exposed toward regulatory risk, to externally produced content that carries the potential for damage to brand and reputation. And in the middle: finance and operational risks. It is no surprise that regulators and authorities are concerned.

On the flip side, this era of digitization opens the door for less developed life sciences industries in emerging markets to explore different digital avenues. While the US's Food and Drug Administration (FDA) and the European Medical Association (EMA) are watching the more mature markets, keeping them regulated, there is lesser governance over the industry in South America or Africa, allowing for digital innovations within their health care structures. A risk, yes: but also an opportunity. "You're probably going to see quite a bit of digital discovery in some of these markets," Goldberg says.

Taking it a step further, Goldberg suggests that the potential for these emerging market innovations also raises the question of whether it may be time to look beyond national definitions of health to explore more global definitions. "I think definitions of treatment or health care will start to become broader more global, because the accessibility of information is blurring national borders," he says. Life sciences companies will not be able to avoid the challenges that this is already creating.

You can't resist digital

Digital channels can provide companies with a lot of information about the types of issues that they search for in terms of health and health management, but they first must learn how to use these channels.

The digital world has no respect for geographic or political boundaries. For the life sciences industry, which is built on a geographic or political model with regulations and restrictions variant from country to country, this poses a huge conundrum. "It's a collision course that the industry is facing right now," Goldberg says. "And I think digital wins: it doesn't matter how much you resist it at the end of the day, your access to information creates more options and opportunity for your health choices and you're starting to see a lot more migration for health care than you have had in the past."

Embracing this change, and digitizing their operations, could lead to huge benefits for life sciences companies. Benefits, in terms of the development of their products, drugs or medical equipment and the ability to lower engagement costs in terms of clinical trials and testing. With digitization, companies can start tailoring health services to different markets and make their business more efficient and patient-centric.

Some companies are already stepping into this space. "We're finding in some ways that larger life sciences companies are using these digital

Digital pharmaceuticals: Pfizer

The client situation

US pharmaceutical giant Pfizer is not shying away from the challenge of digitization in the health care industry. The public is turning more and more to the Internet for its health care and medication information and Pfizer is experimenting in this space, hoping to capitalize of the wealth of potential new and more diversified patients.

In 2007, Pfizer signed a sponsorship deal with online medical site Sermo, to deliver more targeted information to doctors through the site's social networking platforms. The partnership gave Pfizer access to an online community of about 35,000 physicians, with up to 2,000 new physicians visiting each week.¹

The digital program rollout

Taking their online presence further, Pfizer was the first pharmaceutical company to conduct a completely virtual online clinical trial.² In June 2011, the company launched the pilot trial program REMOTE (Research on Electronic Monitoring of Overactive bladder Treatment Experience), which aimed to recruit 600 patients from 10 states in the US to trial the safety and effectiveness of Detrol, a medicine for the treatment of overactive bladders (OAB). Participants were to be recruited online, using a cartoon video explaining the trial, before being shipped medication and then submitting their results via computer or smartphone.

The solution

The pilot was pulled in early 2012, after the required number of participants was not recruited, but the company has vowed to reassess the program for a second trial in 2013 in Europe, named REMOTE 2.0. The failure of the pilot to attract participants was attributed to the overly stringent requirements for participation,³ not the virtual trial platform. Pfizer senior director of clinical sciences Miguel Orri said the company did not fail, as it succeeded in creating a new online informed consent process that will be used for studies in the future. REMOTE 2.0, which is yet to commence, will incorporate a communications device, similar to an iPad, to help patients who currently spend little time online.

Encouraging further online interaction with the public, in June 2012 Pfizer launched GetOld.com, encouraging conversation for people of all ages about self-imposed and societal perceptions of aging. While the site does not advertise products, it provides a platform for ongoing dialogue with potential patients, allowing Pfizer to gather more real-world information about their consumers.⁴

1. *Pharma Exec*, "Pfizer goes digital with Sermo partnership," 24 October 2007.

2. *Financial Times* Ltd 2013.

3. www.lifescienceleader.com, *Pfizer Perseveres In Pioneering Virtual Clinical Trials*, December issue 2012.

4. www.GetOld.com

tools through their learning and development organizations and are now creating virtual environments to start educating health care professionals around future treatment," Goldberg says. "We're seeing digital partnering – bringing together the ability for companies to start profiling patient needs and designing services around them."

Before life sciences companies can go digital, before they can redefine the global notion of health care, they must take the first step: risk management. But the future of digitized health care holds exciting potential. Goldberg concludes, "Digitization is not going away, it's absolutely going to be fundamental to their business and there will be some people that will take greater risks and move further toward that level of innovation than others, but I think, over time, they will all get there."

Download the full *Business Pulse* report on the global top 10 risks and opportunities in 2013 and beyond:
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How EY's Global Life Sciences Center can help your business

Life sciences companies – from emerging to multinational – are facing challenging times as access to health care takes on new importance. Stakeholder expectations are shifting, the costs and risks of product development are increasing, alternative business models are manifesting, and collaborations are becoming more complex. At the same time, players from other sectors are entering the field, contributing to a new ecosystem for delivering health care. New measures of success are also emerging as the sector begins to focus on improving a patient's "health outcome," and not just on units of a product sold. Our Global Life Sciences Center brings together a worldwide network of more than 7,000 sector-focused assurance, tax, transaction and advisory professionals to anticipate trends, identify implications and develop points of view on how to respond to the critical sector issues. We can help you navigate your way forward and achieve success in the new health ecosystem.

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